

HOSTED SERVICES FOR COLLECTING PAYMENTS FROM AND PROVIDING
PERSONALIZED CONTENT TO WEB SITE VISITORS

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Priority Claim

This application claims the benefit of U.S. Provisional Appl. No. 60/244,357, filed October 30, 2000, and U.S. Provisional Appl. No. 60/251,437, filed December 5, 2000, the disclosures of which are hereby incorporated by reference.

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Field of the Invention

The present invention relates to computer-implemented services and user interfaces for allowing users to make payments to other users. The invention also relates to methods for integrating user-to-user payment services into external web sites, including but not limited to the web sites of content or service providers.

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Background of the Invention

Various web-based services have been developed for allowing users to collect payments from other users. Examples of such services include Qpass and BillPoint. These services generally suffer from a number of deficiencies.

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One such deficiency is that the payer typically must complete a significant number of setup steps before making a payment to a new payee. As a result, existing services are not well suited for allowing payees to collect small or one-time payments from large numbers of users. The need to collect such payments may arise, for example, when an author, musical artist, or other content creator wishes to solicit contributions from consumers of downloadable content; or when a charitable organization wishes to solicit online donations from the public.

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Another deficiency is that many existing payment services do not provide a simple mechanism for web site operators to integrate the collection process into their own web sites. As a result, prior art payment services are not well suited for small web site operators to solicit and collect payments via their own web sites. Such a need may arise,

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for example, when an operator of a web site wishes to receive payments from consumers of content hosted by that site. Another deficiency is that existing payment services do not provide an adequate mechanism for payees to enlist other web site operators to assist in the collection process.

Prior art payment services also typically lack the ability for payees to efficiently provide customized or personalized payment requests to payees. The need to provide such requests may arise, for example, when a seller wishes to send a personalized invoice to a buyer, or when an individual wishes to request event-related contributions from a small group of friends.

Many payment services also lack a mechanism for external web sites to provide content to users according to whether, or the extent to which, such users have made voluntary or required payments. In addition, prior payment systems are typically incapable of recognizing return customers.

Summary of the Inventive Features

The present invention addresses the above and other problems by providing various inventive features associated with user-to-user payments. These features may be implemented individually, or in an appropriate combination, within a given payment service. The payment service may be implemented through a web site of a payment service provider. (As used herein, the term "web" refers generally to a navigation interface in which users navigate between pages or documents using hyperlinks; and "web site" refers generally to a networked server system that supports such a navigational interface.)

One feature of the invention involves the use of customizable, payee-specific pay pages for receiving payments. In one embodiment, each user of the service can set up, through a set of pay page configuration pages of the service provider site, one or more pay pages for receiving payments from other users. The pay pages may be customized by the payee with textual and graphical content describing the payee and/or the purpose of the pay page. For example, a content creator may create a pay page for collecting honor system payments from users who download a work, in which case the pay page may describe the content creator and/or the work. The payee may also specify certain

parameters or behaviors of the pay page, such as minimum and suggested payment amounts. Other users may visit the pay page to make credit card or other payments to the payee. In one embodiment, users (payers) can set up and enable a 1-Click™ option and thereafter make pay page payments to others with a single action, such as a mouse click.

5 Another feature of the invention involves the use of pay page templates to allow users to set up customized pay pages for a variety of payment scenarios. Each template preferably specifies the display elements and behavior of a pay page. Templates may be provided by the service provider for a variety of payment scenarios, including but not limited to general purpose payments, honor system payments, tipping, required payments,
10 charities, auctions, invoicing, and events.

Another feature involves the use of pay boxes to allow payers to initiate pay page payments from the web sites of the payees and/or third parties. Each pay box serves as a link to a corresponding pay page, and may appear as a banner-type graphic image (or another type of display object) within the host page. Each instance of a pay box may
15 specify one or more pay page parameters that may be preset or passed by URL (Uniform Resource Locator), such as a suggested payment amount, pay page color, or a textual description.

In a preferred embodiment, the pay box images are served by the service provider site, and are customized for recognized users of the service (e.g., by displaying the user's
20 name). Selection of the pay box causes the user's browser to retrieve the corresponding pay page (customized according to any parameters passed), or in some embodiments, causes the payment to be made as a single-action transaction. Using this feature, web site operators can solicit payments on their own web sites while using the service provider to collect resulting payments. In addition, the web site operators can customize the
25 messaging payers see during and following the payment process.

Another feature involves serving personalized display objects, such as personalized pay box images, within pages of external web sites (web sites that are separate and distinct from the service provider site). In one embodiment, a reference to the display object is incorporated into the coding of an external web page to cause a
30 visitor's browser to request the display object from the service provider site. Upon receiving such a request from a recognized user/browser, the service provider site

personalizes the content of the display object for the particular user, and returns the personalized object for display within the web page. The display object may be personalized, for example, by displaying one or more of the following types of information: (a) the user's name; (b) a portion of the user's credit card number; (c) an indication that selection of the object will cause a particular payee to be paid a particular amount; (d) personal recommendations of products and/or services; (e) links to related content, (f) a payment confirmation message. An important aspect of this feature is that the personalized content is provided within external web pages without exposing such content – or other personal information of users – to the external web site or its operator.

Another feature of the invention is an associates program in which users of the service can host pay boxes or other payment links of other users – preferably in exchange for commissions, bounty payments, or other compensation for resulting referrals. In one embodiment, a payee (pay page owner) can associate-enable a pay page and set up one or more corresponding pay boxes for others to host. Other users may thereafter install these pay boxes on their web sites and earn commissions on referrals that result in payments. Using this feature, users can, for example, raise money for (by hosting pay boxes of) their favorite charities. In addition, an author, musical artist, or other content creator can allow other users to republish a downloadable work under the condition that the content creator's pay box is displayed in conjunction with the work.

Another feature involves rating individual users according to their voluntary payment histories (e.g., the frequency with which they make voluntary payments when presented the option). These payer ratings may be used to allow content providers (typically pay page owners) to provide special treatment, such as access to bonus content, to good payers. In one embodiment, the content provider can configure the payment service to redirect a visitor's browser to one of multiple destination URLs according to the payment history of the visitor. For example, users with poor payment ratings may be directed to a standard version of an audio work while users with good ratings are directed to an exclusive version of the work. With this method, ratings-based content is provided to users without revealing user identities or payment ratings to the content provider. Another feature involves redirecting the visitor's browser as described above, but based on some user attribute other than payment history. For example, the service provider site

could select the destination URL based on whether the user has made a particular purchase (e.g., users who bought a particular CD can access the bonus tracks associated with that CD, while other users can only access samples of such bonus tracks).

Another feature involves providing payment-based access to content at a destination URL specified by a pay page owner. In one embodiment, once a visitor completes the payment process, the service provider site formats and encrypts a string of transaction data according to a particular convention. The transaction data may, for example, include one or more of the following: amount of payment, date, time, e-mail address of user, and IP address of computer making request. The service provider site passes the encrypted string to the destination site – preferably with the destination URL via a redirect message. The destination site decrypts and validates the string, and provides or denies access to the associated content according to the validity of the transaction data. In another embodiment, the payer is given the URL in plain text following payment.

Another feature involves a service for users to send customized payment requests to other users. To send a payment request, the payee preferably creates or selects an existing pay page and then specifies how the page should be displayed to the payer. For example, an auction seller may specify the item name, winning bid, tax, and shipping amounts to be displayed within the pay page. The service then sends an email to the payment request recipient(s) containing a link to the pay page. The URL portion of this link preferably includes parameters specifying how the page should be displayed. This feature may be used, for example, for sending custom invoices to purchasers, and for collecting membership dues and event-related contributions from small groups of users.

Another service feature allows payees to display a real time payment counter on their pay pages. The counter may, for example, be displayed as a goal chart showing the number or amount of payments received since inception, together with a payee-specified goal. This feature may be used on pay pages of charities, for example, to display a real time total of the amount received during a fundraising event. Further, creators of downloadable works may use the feature to indicate the number of visitors that have made honor system payments for a particular work.

Another feature involves the provision of single-action payment links within external web pages to allow users to access, and make payments for, items of content. For

example, a content provider site may include a payment link for allowing users to access and pay for a particular article. When a recognized 1-Click user selects this link, the SP site charges the account of the visitor (typically a small payment in the range of 5 to 50 cents), and redirects the visitor's browser to the content provider page containing the content. This content page may include one or more display objects served by the service provider site, such as a bar displaying a payment confirmation message. Multiple payments made by the same user may be aggregated for purposes of charging the user's credit card. The content page may also include links to other services provided by the service provider site, such as an "unpay" button or a button for adding the content item to a personal library.

The various features of the invention may be implemented within conventional web sites that are based on HTML (Hypertext Markup Language), and may also be implemented within web sites that use HDML (Handheld Device Markup Language), XML (Extensible Markup Language), and other coding conventions.

Brief Description of the Drawings

A computer-implemented payment service that embodies the above and other inventive features will now be described with reference to the following drawings:

Figure 1 illustrates an overall process flow through which users register with the payment service, manage pay pages, and perform various related actions using a service provider web site.

Figure 2 illustrates the basic web site components used to implement the payment service.

Figure 3 illustrates the process through which the service provider site displays pay pages and processes pay page transactions.

Figure 4 illustrates an example pay page.

Figures 5-12 illustrate example web pages showing how users manage pay pages and pay boxes through the service provider site.

Figures 13-16 illustrate example web pages showing how users can locate and install pay boxes of other users to become pay page associates.

Figures 17-19 are screen displays illustrating a feature through which users can request payments from other users via customized versions of existing pay pages.

Figure 20 illustrates a sequence of events that occur when a user requests a web page containing a pay box.

5 Figure 21 illustrates a method by which the service redirects users to outside content (typically of the pay page owner) based on the voluntary-payment history of the visitor.

Figure 22 illustrates a method by which 1-Click users may complete payment transactions directly from externally-hosted pay boxes.

10 Figures 23-25 are hypothetical screen displays showing how web pages of external web sites may be augmented with (a) links to services provided by the service provider site, and (b) personalized content served by the service provider site.

Figure 26 illustrates an instruction page for adding payment links and customer review modules to pages of external web sites.

15 Figures 27 and 28 illustrate a payment link generation tool of the service provider site.

Detailed Description of the Preferred Embodiment

20 A computer-implemented payment service that embodies the various inventive features will now be described with reference to the drawings. The service is hosted by a service provider site (also referred to generally as "the system"), which comprises an HTML-based World Wide Web site in the illustrated embodiment. As will be recognized, the service and its various features may also be implemented within other types of web sites and server systems, including but not limited to systems that provide wireless
25 browsing capabilities. The various service functions described herein are preferably implemented within software executed by one or more general-purpose computers, but could be implemented using other types of computing devices.

30 As will be apparent, the various inventive features of the service may be implemented differently than described herein. Further, the service may be implemented with only a subset of the disclosed features, and/or with additional features that are not

disclosed. The following description is thus intended to illustrate, and not limit, the invention. The scope of the invention is defined by the appended claims.

The description of the payment service is arranged within the following sections and subsections:

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- I. Terminology
- II. Overview
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 - B. System Components
 - 10 C. Pay Page Transaction Processing
- III. Example Pages and Page Flows
 - A. Management of Pay Pages and Pay Boxes
 - B. Associate Hosting of Pay Boxes
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- 15
- IV. Pay Page Templates and Parameters
- V. Pay Boxes and SP-Generated Display Objects
- VI. Pay Box Tracking and Feedback Reports
- VII. Controlled Access to Content Based on Payment History or Other User Attribute
- 20
- VIII. Payment-Based Access to Content
- IX. Display of Payment Counter Data within Pay Pages
- X. 1-Click Payments from External Sites
- XI. Content Distribution Models
- XII. Integration of Payment Service with External Content Provider Site
- 25
- XIII. Payer Preferences for Treatment on External Sites

I. Terminology

The following terms will be used throughout the description of the payment service:

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Pay page – A custom page or screen through which an associated user (the “payee” or pay page “owner”) can receive payments from other users. Typically, a pay page includes information about its owner. Pay pages are persistent, meaning that a given pay page may be used to receive many separate payments over time (from the same or different users).

5 In one embodiment, payees can create pay pages for a variety of different types of payment scenarios (using corresponding pay page templates), such as general-purpose payments, honor system payments, charitable donations, and invoice payments.

10 Service provider or “SP” – Generally, the business entity (or combination of related entities) that operates the payment service.

15 Service provider site (or SP site) – A networked computer system, such as a web-based server system, that implements the payment service. This system may be accessible through a single or multiple Internet domain names, and may include computers that are geographically remote from one another. In the sample screen displays, the SP site includes the amazon.com web site. In one embodiment, the SP site also hosts or is linked to other types of e-commerce services, such as retail sales, music download, and online auction services. Sites or pages that are separate and distinct from the SP site are referred to as being “external.” In the illustrated embodiments, it may be assumed that all external
20 sites are hosted by computers that are outside the control of the SP, and that such sites are controlled by business entities other than the SP.

25 Pay box – A display object that may be incorporated into a page to provide functionality for viewers of that page to initiate payments to a pre-specified recipient. In the preferred embodiment, each pay box includes a graphical image served by the SP site and provides a link to a corresponding pay page. In one implementation, pay boxes that point to a particular pay page may be installed within a web site of the pay page owner (“second party sites”) and/or web sites of third parties (“third party sites” or “associate sites”). Pay boxes may optionally specify pay page parameters, such as a suggested payment amount.

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Pay box graphic (or "pay box image") – The graphical image portion of a pay box (e.g., a GIF or JPEG file). When a user views a page having a pay box installed therein, the user's browser requests the pay page graphic from the service provider (SP) site. In one embodiment, if the user is recognized by the SP site this graphic is customized for the particular user (e.g., by incorporating the user's name into the graphic). The graphic may, but need not, be similar in size and appearance to conventional banner ad graphics. A textual link, button, icon, or another type of content (Flash, Shockwave, etc.), may alternatively be used.

Associate – A web site owner or operator that hosts (displays) a pay box or other link to a pay page of another user, potentially in exchange for commissions or other compensation for resulting referrals. For example, a music download site may host pay boxes of the associated artists to allow users to make voluntary or mandatory payments to the artists; the operator of the music download site (associate) may receive commissions on such payments. The use of third party web sites to display pay boxes is also referred to as "pay box syndication."

Honor system payments – Payments in which the visitor is asked to pay a particular amount in return for accessing content. For example, users may be asked, via a pay box hosted on a music download site, to pay \$1 for each MP3 file downloaded. The content may also be in the form of a computer-implemented service (e.g., locating the best price for an item). Voluntary payments for accessing content may also be referred to generally as "tips."

1-Click – A service which allows a customer to complete a transaction with a single action, such as a single mouse click, using pre-specified information. One implementation of such a service is described in U.S. Patent No. 5,960,411, the disclosure of which is hereby incorporated by reference.

I. Overview

The payment service preferably provides functionality for users to receive payments from other users via payee-customized pay pages. In one embodiment, once a user has set up an account with the SP, a default pay page is automatically created for that user. In another embodiment, pay pages exist only for those users who have actively created a pay page. In either case, each user can preferably have more than one pay page. For example, a musical group may create a separate pay page for each work it has posted in digital form (see Figure 7), and may use these pay pages to collect voluntary payments (tips or honor system payments) from users that download such works. Further, an individual may create one pay page for personal use and another for business use.

In a preferred embodiment, each pay page is based on a template that specifies the layout and the behavior of the pay page. Each template contains default values that can be overridden by the pay page owner during the pay page setup process. Each pay page preferably includes the following “required” information fields or values: (1) a title, (2) an identifier of the pay page “owner” or “payee,” (3) a description, and (4) an amount, which can typically be modified by the payer. Additional fields and options may be defined by a particular template. Different templates may be provided for different types of organizations, such as charitable organizations, authors, musical artists, other content providers, and individuals. Further, templates may be provided for specific types of pay page uses, such as tipping, honor system payments, invoicing, auctions, membership dues, rebate requests, and payments required for access to content. The types of elements that may be included within a template in one embodiment are described below in section IV (“Pay Page Templates and Parameters”).

Each pay page preferably has a unique URL (Uniform Resource Locator). The URLs of the default pages (if used) are preferably based on a naming convention in which the user’s email address is the only variable (e.g., www.paypages.com/<email address>.htm). This allows users to easily locate the default pay pages of other users. An SP-assigned or user-selected nickname may be used in place of the email address. Other types of pay pages may be given encoded URLs that are relatively difficult to identify through trial and error. As discussed below, the service may support a variety of methods for locating and accessing pay pages, including pay boxes and a search engine.

In addition to the payee-specific pay pages, the service may provide a generic “send money” page for sending money to payer-specified recipients.

Although the web sties and pages in the illustrated embodiments use HTML (Hypertext Markup Language) coding, it will be apparent to those skilled in the art that other markup languages could be used. For example, the inventive features could be implemented using web sites and web pages that use HDML (Handheld Device Markup Language), XML (Extensible Markup Language), or another appropriate markup language. In addition, although the use of personal pay pages provides important benefits, it will be recognized that many of the features of the invention can be implemented without requiring payees to have pay pages.

A. General Process Flow (Figure 1)

Figure 1 illustrates the basic process flow through which users register with the service, manage pay pages, and perform various related actions. Each state within Figure 1 corresponds generally to one or more pages of the SP web site. As indicated by the figure numbers listed in Figure 1, examples of some of these web pages are included in subsequent drawings. The process by which users make payments via pay pages is shown in a separate drawing (Figure 3).

As depicted by the “log-in” state 30, users initially enter the payment service by logging-in with a pre-selected username and password (or other authentication information). New users must initially register with the service (state 32) before they can make or receive payments via pay pages. During the registration process, the user enters various account information such as a name, credit card number, password, and email address. During or following the registration process, the user can also preferably enter settings for, and enable, the system’s 1-Click™ service. As discussed below, when the 1-Click service is enabled, the user can make pay page payments with a single mouse click or other single selection action. In one embodiment, users can also make 1-Click payments directly from pay boxes hosted on external web sites. During or following the registration process, the SP site stores a cookie on the user’s computer to permit subsequent identification of the user.

As illustrated by state 34, the user may also optionally link the account with the SP to an existing checking account. The bank routing number associated with the checking account may be determined automatically, based on information entered by the user from the face of a check, using the process described in U.S. Appl. No. 09/517,563, filed March 2, 2000, the disclosure of which is hereby incorporated by reference. Once the pay page account has been linked to a checking account, the user may initiate transfers of funds between the two accounts (state 60).

As depicted by state 36, the service may include a main page (see Figure 5) or other area from which users can initiate various actions. The main page preferably displays a listing of the user's pay pages (if any), and allows the user to select a particular pay page with which to perform an action. As illustrated by state 40, the user can create a new pay page, and can edit, view, or delete an existing pay page (see example page flow in Figures 5-7, discussed in section III-A below).

As depicted by state 42, the user may also create, edit and delete pay boxes for a particular pay page (see example page flow in Figures 8-11, discussed in section III-A below). Once a pay box has been created, the pay page owner (and in some embodiments, other users) can "install" that pay box within one or more external web pages to provide a link to the corresponding pay page. To facilitate this process, the service automatically generates a sequence of HTML (Hypertext Markup Language) coding to be added to the host web page (see Figures 10 and 16, discussed below). This HTML coding includes a reference to the pay box image (hosted by the SP site), such that the image is automatically requested from the SP site when the page is displayed by a browser. The coding may alternatively be generated according to another markup language or link coding convention. For example, in a wireless environment, the appropriate HDML (Handheld Device Markup Language) coding may be generated. Further, the payment service may generate coding for installing other types of links (e.g., textual) to pay pages.

One particular application for the pay box feature is to provide a mechanism for compensating creators of digital content. For example, a content creator such as a musical group, author, or web site operator could install a pay box on its own (second party) web site to solicit voluntary or mandatory payments from users. Users who access the content can then click through the pay box to make voluntary or required payments to the content

creator. The amount of this payment (e.g., \$1 per download) may be suggested by the pay box, in which case this amount is preferably displayed within the pay page when the user clicks through (as described below). Where the payments are “required,” an appropriate mechanism may be used to prevent access to the content until the user has paid (see, for example, section VIII titled “Payment-Based Access to Content”).

One variation of this model is for the SP itself to provide a forum for content creators to post their works in a downloadable form. The posted works could then be displayed (e.g., on product detail pages) in conjunction with pay boxes for soliciting voluntary (or mandatory) payments. With this model, any user (regardless of whether it operates a web site) could post a work on the SP site and use the payment service to collect payments from users. For example, a relatively unknown musical group could post a song or album in MP3 format together with a pay box requesting a voluntary payment of \$1 per download.

In one embodiment of the payment service, during the pay page creation or editing process (state 40) the user may “associate-enable” a particular pay page. Once a pay page has been associate-enabled, other users may install one or more of that pay page’s pay boxes within their own web pages – optionally in exchange for commissions or other compensation for resulting referrals. For example, a charitable organization such as the Red Cross may associate-enable its pay page and create one or more pay boxes for that page. Other users (associates) may then install these pay boxes on their own web sites to provide a mechanism for others to locate the Red Cross pay page. When a user (a) follows (clicks through) such a pay box and then makes a payment on the corresponding pay page, or (b) where applicable, makes a 1-Click payment from the pay box, the associate who generated the referral may be given a portion of that payment.

To become a pay page associate, the user initially searches for or otherwise navigates to a desired associate-enabled pay page (state 46). A search engine may be provided for this purpose. The user then selects a corresponding pay box (or optionally another type of link to a pay page), and installs the pay box on one or more third party sites (state 48). This process is illustrated by the example page flow of Figures 13-16, discussed in section III-B below.

One particular application for the associate feature is to provide a mechanism for compensating distributors of digital content. A third party (associate) distributor of digital content (e.g., a music or e-book download site) could display the pay boxes of artists, authors or other content creators together with the associated content. When users click through such pay boxes and make voluntary payments to the content creators, the third party associate may be given a portion of each payment as compensation for distributing the content. Another specific application is to allow web site operators to raise money for their favorite charities while receiving commissions.

As illustrated by state 52, the system may also permit users to generate and send payment requests to other users. To initiate a payment request, the payee-user specifies the email address(es) of one or more recipients, and enters pay page customization data specifying how the payee's pay page should be displayed to such recipients. This customization data may include, for example, a requested payment amount and an associated textual description. The system responds to initiation of the payment request by sending an email to each recipient with a URL-encoded link to the pay page. The URL portion of this link includes parameters that are used by the SP web site to determine how to display the page. This feature of the system may be used, for example, to send customized invoices to other users. Other example applications for this feature are described below in section III-C ("Sending a Payment Request").

As depicted by state 54, the service may also provide an option to set up an automated payment request or a recurring payment request. An automated payment request may be used, for example, by an online auction seller to automatically send invoices (links to customized pay pages) to winning bidders. Such a pay page may automatically be populated with the picture and description of the auction item (as displayed within the corresponding auction page) and the dollar amount of the winning bid. A recurring payment request may be used to collect any type of recurring payment, such as subscription fees or group membership fees.

Finally, as depicted generally by states 56-60, the service may provide various account management pages. From these pages, the user may perform such actions as viewing pay page transactions (both payee and payer), transferring funds into and out of the account, and updating a user profile. The service may also generate, send and retain

transaction receipts, and may provide reporting for tax purposes (e.g., for payments to charitable organizations).

B. System Components (Figure 2)

Figure 2 illustrates a set of components that may be used to implement the payment service on the SP site 66. The system includes a web server 68 which accesses a content database 70 and a user accounts database 72. The system may also include databases for storing other types of information, such as a products database and an auction database (not shown).

The web server 68 includes a pay pages application 76 which embodies the various pay page related functions described herein. The pay pages application includes or makes use of modules for performing some or all of the following tasks or services: (a) identification of return visitors to the SP site using cookies, (b) generation of customized pay pages and pay boxes according to settings specified by payees, (c) display of the pay pages to visitors, customized according to any parameters passed with page request and customized with visitor names/1-Click settings, (d) processing of payment transactions, including tracking and crediting associates for referrals and sending "thank you" emails to payers, (e) generation of HTML or other coding for installing pay boxes, or other links to pay pages, within external pages, (f) user browsing of associate-enabled pay pages and their associated pay boxes, (g) generation of payment requests, and (h) user viewing and updating of pay page account information. Each module preferably includes executable code, and where applicable, includes web pages for interacting with users. Other functions and services that may be implemented by the pay pages application are described below.

As illustrated, web server 68 communicates with an image server 77 that dynamically generates and serves pay box graphics (and possibly other types of images) for display within external web pages. Another type of object server, such as a server of animation objects or other executable display objects, could alternatively be used. In one embodiment, the pay pages application 76 and the image server 77 recognize different browser capabilities (HDML, wireless, WAP, etc.) and device types, and select the pay pages and pay boxes to display accordingly.

The web server may also include applications 78 for implementing other types of services such as a retail sales service and one or more person-to-person sales services. The various applications 76, 78 may share code modules for implementing common tasks such as registration, user authentication, and credit card processing.

5 The web server also preferably communicates with a search engine 80 for searching the various areas of the site. Using this search engine, users can search for pay pages of other users based on user name and other criteria. As mentioned above and illustrated in Figure 12, users can run searches specifically for pay pages that are associate-enabled.

10 As depicted in Figure 2, the content database 70 includes the pay pages created by users, and includes pay page templates that may be used to generate page pages. As mentioned above, different templates may be provided for different payment-related scenarios. The templates are preferably created by the service provider, although the service could provide functionality for payees to create their own templates. The content
15 database also includes web pages and templates for the various other areas of the site.

 The content database 70 may also include the descriptions of pay box styles made available by the SP, and specifications of pay boxes that have been defined by pay page owners. The specification of a pay box may indicate, for example, the pay box style, color, suggested payment amount, textual message, and greeting format (see Figures 8
20 and 9). Some or all of these pay box parameters may alternatively be encoded within pay box identifiers passed by URL. As described below, the image server 77 uses the pay box specifications to dynamically generate and serve pay box graphics (e.g., GIF images) to user computers 84. The pay box graphic may also be customized to include the name and other information about the visitor, if known.

25 In embodiments in which the SP site allows users to post and receive voluntary payments for digital works (as described above), the content database may also include copies of such works (not shown). These works may be located using the site's search engine or any other suitable navigation interface.

 As further illustrated in Figure 2, the user accounts database 72 stores account-
30 specific information about users of the site. For each user, this information preferably includes a user profile (name, credit card number, 1-Click settings, etc.), an account

balance, a history of transactions (including incoming and outgoing pay page payments), and information about any pay page associate relationships the user has created.

C. Pay Page Transaction Processing (Figures 3 and 4)

Figure 3 illustrates the basic process by which the SP web site 66 displays pay pages, and processes pay page transactions, via the pay pages application 76. As depicted by block 90, the web site initially receives a URL request from a user/computer 84 for a particular pay page. If the URL request resulted from user selection of pay box, the URL may include one or more parameters that override the default values of the pay page. For example, if the pay box specifies a suggested payment amount, this amount is passed via the URL and overrides the default amount displayed within the pay page. Additional details of how parameters may be used are described below in section IV ("Pay Page Templates and Parameters.") If the URL request resulted from selection of a pay box hosted by an associate, the URL also preferably includes a unique identifier of the associate.

If the URL request is from an existing user of the service, the request typically includes a cookie that is used by the system to identify the user. The use of cookies for this purpose is well known in the art.

As depicted by block 92 of Figure 3, the web site responds to the URL request by generating and returning (displaying) the pay page. An example pay page as seen by the user is shown in Figure 4. As illustrated, the pay page preferably includes a default or owner-assigned title 92A, a graphic image (logo or photo) 92B uploaded by the pay page owner 92B, and a memo or description 92C entered by the pay page owner. In addition, the pay page includes a greeting message 92D that identifies the visitor by name (if known). If the visitor's identity is unknown, a default message may be used such as "Please sign in."

As further illustrated by Figure 4, the pay page also includes an "amount" field 92E in which the visitor can enter a payment amount, and a payment button 92F or other link for allowing the visitor to initiate the payment process. In the illustrated example, a suggested payment amount of \$2 appears in the amount field 92E. If the visitor is known and has the 1-Click service enabled (as in the Figure 4 example), the payment button 92F

is preferably configured and labeled as a 1-Click button that can be selected to complete the payment transaction. If, on the other hand, the visitor either (a) is unknown, or (b) is known and does not have the 1-Click service enabled, the payment button 92F includes a message such as "Pay Now! (select your credit card)."

5 As depicted by the "1-Click" path in Figure 3, if the visitor selects a 1-Click version of the payment link 92C, the system 66 executes the transaction (preferably within a predefined period of time) without requiring any further user action. In addition, the system displays a thank you page (block 98) or redirects the user to an owner-specified page (typically a "thank you" page of the owner's external web site). No additional user
10 action is needed to complete the payment transaction at this point. If, on the other hand, the visitor initiates payment via a non-1-Click link, the visitor may be required to log-in or register and select a credit card before the transaction is executed (blocks 94 and 96).

Although credit cards are used in the illustrated embodiment, any appropriate method for transferring funds between users can be used. In addition, it should be
15 understood throughout the various embodiments described herein that the payer's credit card need not actually be charged at the time of the transaction. For example, in embodiments in which users typically make frequent small payments (e.g., less than \$1) for accessing articles or other content, the SP site may aggregate a number of payments for purposes of charging the user's credit card.

20 As depicted by block 100, if the visitor was referred to the pay page from a pay box displayed within an associate web site, the system may credit the account of the associate-user with a commission. The system could additionally or alternatively be configured to credit the associate's account with a bounty payment (e.g., for each referred user who sets up an account with the SP). Examples of methods that may be used to track
25 referrals from associate web sites and determine associate commissions are described in U.S. Patent No. 6,029,141, the disclosure of which is hereby incorporated by reference. As depicted by block 102, the SP may extract a transaction fee before crediting the remainder of the payment amount to the payee's account.

30 As described below in section X ("1-Click Payments from External Sites"), the above-described process may be varied to allow 1-Click visitors to complete the transaction directly from an externally-hosted pay box, such as by simply clicking on the

pay box. In such instances, the SP site responds to selection of the pay box by immediately redirecting the visitor's browser to an external URL pre-specified by the pay page owner (or in some embodiments, the associate). Thus, the transaction is completed without requiring the visitor to view the pay page.

5 The process shown in Figure 3 may also include appropriate error handling tasks (not show) for processing invalid pay page parameters, invalid pay page entries (e.g., payment amount less than minimum payment amount), and other error conditions.

10 III. Example Pages and Page Flows

Figure 5 illustrates an example "main page" of the payment service. This page displays the user's pay page account balance, and lists the pay pages that are currently active within the account. The page also provides links for the user to perform the following types of actions with respect to a selected pay page: edit page, delete page, view page, manage page's pay boxes, and send payment request. The option to send payment requests may be omitted, or may be provided only for certain types of pay pages (e.g., the user's default pay page). The main page also provides links for the user to create a new pay page, become a pay page associate, and access other areas of the site.

15 A. Management of Pay Pages and Pay Boxes (Figures 6-12)

20 The basic process for creating and managing pay pages and associated pay boxes will now be described with reference to Figures 6-11. In this example flow, it is assumed that all pay pages are created using the same template. Where different templates exist for different types of pay pages, a user wishing to create a new pay page may initially be prompted to select the pay page type.

25 Figure 6 illustrates the "step one" page of the pay page management process. This page may be accessed by selecting the "Create a New PayPage" button, or one of the "edit" buttons, on the main page (Figure 5). This "step one" page summarizes the six categories of pay page settings that can be customized, and provides respective "edit" buttons for allowing the user to modify the default settings.

30 The first category of settings is the messaging associated with the pay page. The messaging includes a pay page description to appear on the pay page, a thank-you

message to be displayed to a payer following payment, and a thank you message to be sent by email to the payer. The pay page owner may also be given the option to upload an audio or video clip to be played within the pay page.

The second category is the title and color scheme of the pay page. The color scheme may, for example, be selected to be similar to that of the owner's referring site.

The third category is an optional image to be displayed within the pay page. This may be used, for example, to display a picture of the pay page owner, or to display an image associated with the downloadable content to which the pay page corresponds.

The fourth category is the payment settings of the pay page. These settings include a default payment amount (the amount transferred if the payer does not modify the amount field) and a minimum payment amount.

The fifth category is the advanced settings for the pay page. By editing the advanced settings, the user can specify whether the page is to be associate-enabled, and if so, the commission percentage to be paid for referrals. In addition, the user can specify a location and an email address to be displayed within the pay page, and can specify the URL of a thank you page to be displayed upon completion of the payment process.

The sixth category involves the use of an optional payment counter. This feature can be used to display an optional chart on the pay page. When this feature is enabled, the pay page includes a real time counter indicating an amount received, and/or a number of payments received, via the pay page or an owner-specified set of co-owned pay pages. The counter may optionally be displayed as a goal chart indicating the payment total relative to an owner-specified goal. The payment counter feature may be used, for example, by charities to display real time fundraising data. An example implementation of this feature is described below in section IX titled "Display of Payment Counter Data within Pay Pages."

When the user finishes customizing the pay page settings, the user can select a "continue" button to access the "step two" page (Figure 7). In step two, the user previews the pay page, and can either go back to make additional changes or proceed to step 3.

In step three (Figure 8), the user can select a pay box style to use with the pay page. The user can alternatively return to the main page (Figure 5) by selecting the "Manage PayPages" link. In the illustrated example, each style corresponds to a

particular pay box size. Although rectangular pay boxes are used in this example, pay boxes having other configurations may be used.

In step four (Figure 9), the user can create a pay box having the previously selected style. Specifically, the user can specify a greeting and message to be displayed in the pay box, and can choose a pay box border color. In addition, the user can specify a suggested payment amount (e.g. \$1) for use with the pay box.

Preferably, when a suggested amount is specified, this amount is passed by URL as a parameter, and is displayed on the pay page when a user accesses the pay page through this pay box. Different pay boxes for the same pay page may have different suggested payment amounts (or other pay page parameters). Although only one type of pay page parameter (payment amount) is shown in Figure 9, the pay box creator may be prompted to specify other types of parameters, such as pay page display color, other textual fields, etc. In this manner, the pay page can be customized (displayed) differently for different pay boxes. The use of parameters to specify pay page display attributes is described in section IV ("Pay Page Templates and Parameters"). When the user selects the "continue" button to proceed to step five, the pay box settings are stored in the content database 70 for subsequent use.

In step five (Figure 10), the pay box is displayed to the user together with the HTML code for installing the pay box on a web site. The pay page owner can install the pay box within any number of web pages by copying the block of HTML code into the HTML coding of such web pages. Advanced users can also manually append additional parameters to the pay page URL to control other display attributes of the pay page.

As illustrated in Figure 10, the HTML code includes a reference to the pay box graphic served by the SP site. Thus, when a user/browser retrieves the HTML document in which the pay box is installed, the browser automatically requests the pay box graphic from the SP site. If the request includes a cookie that allows the SP site to identify the user, the SP site preferably incorporates the identified user's name into the pay box graphic as shown. Selection of the "continue" button of the "step five" page returns the user to the main page (Figure 5).

As illustrated in Figure 5, the user can also view and manage the pay boxes associated with a particular pay page by selecting the corresponding link titled "Manage

5 this PayPage's pay boxes." Figure 11 illustrates an example of the "manage pay boxes" page that appears when this link is selected.

10 Although the pay boxes shown in the Figures 8-11 vary in size and contain textual content, "standard" pay boxes without any textual content may alternatively be used. For example, as described below, standard buttons or icons may be used in which the payment amount is represented by a particular color (e.g., green, blue and red payment buttons represent payments of 5 cents, 10 cents, and 25 cents, respectively). This may be useful, for example, where the pay boxes are used to make small, frequent, 1-Click or other payments from external content provider sites (see section X, "1-Click Payments from External Sites").

Figure 12 illustrates a simplified web form that may be used to create pay pages. In this example, the pay page creator can specify a referral commission (percentage) for paying associates.

15 B. Associate Hosting of Pay Boxes (Figures 13-16)

20 The process of enrolling as a pay page associate involves locating an associate-enabled pay page, selecting a pay box associated with that pay page, and then installing the pay box within one or more web pages. Thereafter, whenever a visitor to such a web page clicks on the pay box and makes a payment, the associate typically receives a commission. A given pay page may have an unlimited number of associates. In addition, a given user may become an associate of multiple different pay pages and pay page owners.

25 Figure 13 illustrates a page that may be used to search for associate-enabled pay pages. As illustrated, users can search for pay pages based on one or more of the following: name/description, city, and state. Any of a variety of other navigation tools may be provided for locating associate-enabled pay pages, including browse trees in which the pay pages are arranged by category.

30 Figure 14 illustrates an example search results page for the search "name or description = Animal Society." This page lists the matching pay pages, and provides links for viewing the pay pages and their associated pay boxes. Where multiple

commission rates are supported, the page may also indicate the commission percentages offered by the owners.

Figure 15 illustrates an example page listing the pay boxes that have been defined for the pay page titled “The Animal Society in Seattle, WA.” From this page, the user can select the style of the pay box to host. Upon selection of the “continue” button, the SP site returns a page with the selected pay box style and a sequence of HTML for installing the pay box (Figure 16). This HTML sequence is similar in form to the sequence in Figure 10, but includes a unique identifier of the associate (assigned by the pay pages application 76 and stored in the accounts database 72) within the URL of the pay box graphic. As described above with reference to Figure 3, the pay pages application uses this identifier to determine the identity of the referring associate and to keep track of referral events.

In some embodiments, the associate may be given the option (not illustrated) to define pay page parameters to be used with the associate-hosted instance of the pay box. For example, the associate may be permitted to enter a suggested payment amount, an associate name or logo for co-branding the pay page, and/or a post-payment destination URL. Some or all of these parameters may automatically override the owner-specified parameters associated with the pay box.

C. Sending a Payment Request (Figures 17-19)

As mentioned above, the payment service may also provide a service for users to send payment requests to other users via customized pay pages. The user preferably initiates a payment request by selecting a pay page to be used for the request (e.g., by selecting a “send payment request” link as shown in Figure 5). Alternatively, the user could be prompted to select from a list of predefined payment request templates, in which case a new pay page may be created to process the payment request.

Figure 17 illustrates an example page that may be used to send a payment request using a selected pay page. From this page, the user can enter (or select from a personal address book) the names and email addresses of the payers (payment request recipients). In one embodiment, new payers are automatically added to the user’s personal address book.

As further illustrated in Figure 17, the user may also enter an optional description and an optional payment amount, both of which override the description and payment amount (if any) defined within the pay page. Depending upon the type (template) of the pay page used, the user may also be prompted to specify other pay page fields and options (not shown). For example, if the payment request corresponds to a pay page for auction invoices, the user (payee) may also be prompted to enter the name of the winning bidder and the details of the transaction (item number, winning bid, shipping costs, etc).

In the illustrated embodiment, the “send payment request” page also includes a link 108 to a page (not shown) for making the payment request automatic or recurring. For example, the user can specify that the payment request should be re-sent each month, or should be sent automatically to a winning bidder upon completion of an auction.

When the user selects the “send payment request” link, the system 66 stores the submitted form data and sends email messages to each of the listed payers. As illustrated in Figure 18, this email message includes a hyperlink 110 to the customized version of the selected pay page. The URL portion of this hyperlink (not shown) points to the pay page, and includes one or more parameters for customizing the pay page. These parameters may include the values entered by the pay page owner (e.g., the payment amount), and/or may include identifiers for allowing the pay pages application 76 to look up such values from a table. The use of URLs to pass pay page parameters is discussed separately below in section IV (“Pay Page Templates and Parameters”). When a payment request recipient selects the hyperlink, the system 66 returns the customized pay page as discussed above with reference to Figure 3.

Figure 19 illustrates an example pay page used to request donations associated with an event. In this example, the payer is recognized by the system and has the 1-Click service disabled. As mentioned above, pay pages used for other types of payment request scenarios may include other types of fields. For example, a pay page used for requesting payment from the winning bidder in an auction may include fields for the item number, winning bid amount, shipping charges, taxes, and a shipping address; these fields may be populated automatically by the pay pages application 76 in response to successful completion of an auction, or may be filled in by the seller.

IV. Pay Page Templates and Parameters

Pay page templates specify both the “look and feel” and the behavior of the pay pages. In the preferred embodiment, every pay page is based on a template. As mentioned above, templates may be provided by the SP for each of a variety of payment scenarios, such as charitable donations, events, invoices, auctions, rebate requests, and downloads of digital content.

Each template preferably specifies the elements that appear on a pay page. Table 1 below lists and describes the elements that may be included in a template in one embodiment of the invention. The column labeled “type or size” in Table 1 indicates the type or size of the element. The “display on template” column indicates whether the owner sees the element during the pay page creation/editing process (if set to NO, the element takes on the default value specified by the SP). The “edit by creator” column specifies whether the owner/creator can modify the value associated with the element during pay page creation. The “edit by payer” column indicates whether the payer (pay page visitor) can modify the value. The “pass in URL” column specifies whether the element’s value can be passed as a parameter with the pay page URL.

Element	Description	Type or Size	Display on Template	Edit by Creator	Edit by Payer	Pass in URL
amount	the amount to be paid	currency	Y	Y	Y	Y
memo	note passed with payment	80	Y	Y	Y	Y
anonymous	hide payer’s email address from payee	Boolean	Y	Y	Y	N
image	url pointer to page image	120	Y	Y	N	N
page title	Title of the page displayed to the customer and payee	60	Y	Y	N	N
page name	name of page, used in URLs	16	Y	Y	N	N
description	User description of themselves, PayPage	2000	Y	Y	N	N
bordercolor	Color used for PayPage border		Y	Y	N	Y
thanks_email	Contents of thank you e-mail to be sent to payer	2000	Y	Y	N	N
thanks_msg	Thank you message from payee to payer after payment has been made	120	Y	Y	N	N
pay_counter	Type of payment counter, if any	8	Y	Y	N	N
PassThru	Allow 1-click payments from pay boxes	Boolean	Y	Y	N	N
thanks_URL	URL of thank you page	120	N	Y	N	N
CompanyName	Name of Company	40	Y	Y	N	N
City	City of organization	40	Y	Y	N	N

Element	Description	Type or Size	Display on Template	Edit by Creator	Edit by Payer	Pass in URL
State	State of organization	40	Y	Y	N	N
page_searchable	allow searching for this page	Boolean	Y	Y	N	N
transactiontype	type of transaction	8	N	N	N	N
e-mail	PayPage owner e-mail	80	N	N	N	N
name	PayPage owner name	80	N	N	N	N
event_date	Date of associated event	date	Y	Y	N	N
event_time	Time of associated event	time	Y	Y	N	N
label1-label6	data field labels	80	Y	Y	N	Y
content1-content 6	data field contents	80	Y	Y	Y	Y
shipping	shipping and handling amount	6	Y	Y	Y	Y
tax	tax amount	6	Y	Y	Y	Y
SKU	sku of item	32	Y	Y	N	Y
order number	order number	32	Y	Y	N	Y
addr_name	name	80	Y	Y	Y	N
addr_line 1	line 1 of address	80	Y	Y	Y	N
addr_line 2	line 2 of address	80	Y	Y	Y	N
addr_city	city	80	Y	Y	Y	N
addr_state	state	80	Y	Y	Y	N
addr_zip	zip	80	Y	Y	Y	N
addr_country	country	80	Y	Y	Y	N
charity	PayPage is for a charitable purpose	Boolean	Y	Y	N	N
tipping	Template supports tipping	Boolean	N	N	N	N
charity_ID	ID of organization (if charity)	20	Y	Y	N	N
syndicate	Allow page to be syndicated	Boolean	Y	Y	N	N
syndicate_fee	Syndicate fee (commission)	%	Y	Y	N	N
provider-syndicate_fee	% of the syndicate fee that SP receives	%	N	N	N	N

Table 1

Some of the elements, such as the page title, amount, and description fields, are preferably required for all templates. Other elements may be selected at will by the template designer.

The templates may also reference page handlers for performing specific actions. For example, the handler for a rebate template may extract the serial number of the purchased item and determine whether the number appears in a list of valid serial numbers. The handler could also update a database to mark this serial number as "used." In addition, the templates may include Javascript or other code for performing field validation, calculations, or other functions.

For elements that can be passed by URL, a pay page's values may be overridden by parameter values contained within the URL (see block 92 of Figure 3). These

modified values may be specified by a pay box or other link to a pay page (e.g., an overriding suggested payment amount), or by advanced users. In a preferred embodiment, the parameters are passed as name-value pairs and can be passed in any order. For example, a URL specifying the amount, SKU, sale price, tax, and shipping for an item may be of the following form:

`http://www.server.com/bob@antiques.com/?amount=20.00, sku=1234, tax=4.50, shipping=3.50, itemprice=12.00`

V. Pay Boxes and SP-Generated Display Objects

Each pay box preferably has a unique identifier that is assigned upon creation by the pay page owner. The identity of the corresponding pay page may be encoded within and determinable from this identifier. This identifier is preferably used by the image server 77 (Figure 2) to look up the associated pay box specifications from the content database. Some or all of the pay box's specifications, such as the style, color, and a pay page identifier, may alternatively be encoded within the pay box identifier.

There preferably are two URLs associated with each pay box. The first URL is used to serve the pay box graphic, and may, for example, have the following form:

`http://www.server.com/payboxes/{pay box ID}.gif`

The second URL points to the corresponding pay page, and is used to retrieve the pay page when a user clicks on the pay box graphic. This URL may, for example, have the following form:

`http://www.server.com/{pay box ID}`

As mentioned above, one or more parameters (such as a suggested payment amount) may be passed with this second URL. The pay box ID is preferably included in the second URL to allow the application 76 to track click-through events on a per-pay-box basis. Requests for the pay box graphic may also be recorded to track the ratio of click-through

events to pay box impressions. As described below, historical data regarding impressions (i.e., viewing events), click-through rates, and success (payment) rates, may be provided to the pay page owners.

For associate-hosted pay boxes, the URL formats are the same except that they include an identifier of the hosting associate. For example, the URLs may have the following formats:

`http://www.server.com/payboxes/{associate ID}/{pay box ID}.gif`

`http://www.server.com/{associate ID}/{pay box ID}`

The associate ID is preferably recorded each time the associate-hosted pay box is requested, and each time the pay page is requested from that pay box. As discussed above, the pay pages application 76 also uses the associate ID to credit an account of the referring associate when an associate-referred visitor makes a payment.

As described above, the pay box URLs and associated HTML coding are generated automatically by the application 76 when a second party (owner) or third party (associate) selects a pay box to host (see Figures 10 and 16). Web site developers may alternatively install the pay boxes by manually generating the HTML or other coding.

Figure 20 illustrates the general sequence of events that occur, in one embodiment, when a user (visitor) requests and views an external (2nd or 3rd party) web page containing a pay box. The drawing is also illustrative of the method used by the SP site to serve customized display objects other than pay box images. Initially, the visitor's browser 84 transmits a request for the page to the 2nd or 3rd party site 120 (event 1). The site 120 responds by returning the requested HTML document with the reference to (URL of) the pay box graphic (event 2). Upon parsing the HTML document and detecting this reference, the browser requests the pay box graphic from the SP site 66 (event 3). If the visitor is an existing user of the payment service, this request may include a cookie that can be used by the SP site to look up the name and 1-Click settings of the visitor.

The SP site 66 responds to this request by generating the pay box graphic (event 4), as described with reference to Figure 3. As part of this process, the image server 77

looks up and/or decodes from the pay box ID the specifications of the pay box. These specifications may include, for example, the pay box size, color, message, and suggested payment amount specified by the pay page owner. In addition, if the request included a valid cookie, the image server 77 looks up the visitor's name and 1-Click settings. The image server 77 uses the pay box specifications and visitor-specific information (if available) to generate the pay box graphic. As described above, the graphic may include the visitor's name, and may include a 1-Click payment button 92F (Figure 4) if the 1-Click service is enabled. In one embodiment, payers may pre-specify the type or level of customization provided within pay box graphics (see section XIII titled "Payer Preferences for Treatment on External Sites").

The image server 77 could also include other types of personalized information within the graphic, or within another display object. For example, the graphic, or a separate dynamically-generated graphic, could be customized to include selected digits of the visitor's default credit card. In one embodiment, for example, the image server also generates and serves a separate bar which is displayed at the top of the same external web page. This bar preferably contains the name of the visitor (if recognized by the SP site), and information about payments made during the current browsing session. The bar may also include buttons for performing certain functions, such as negating the last payment, or adding an article being viewed to a personal library maintained by the SP.

Further, the pay box graphic or other display object could include personal recommendations of products or services available for purchase from the SP. The personal recommendations may be generated based on user's purchase histories, browsing histories, and/or explicitly-specified interests, using methods that are well know in the art. These personal recommendations, and/or other display attributes of the graphic, could be selected based further on the identity of the hosting site 120. For example, if the hosting site 120 is an online sports shop and the visitor's profile indicates an interest in surfing, the graphic may list surf-related products sold by the SP.

Further, rather than serving a customized graphic, the SP site could serve another type of object selected or customized based on the user's identity, such as a textual link or a streamed audio of video clip. It will also be recognized that the personalized graphic images or other display objects could be pre-generated (generated prior to being

requested), and/or cached following to dynamic generation, so that they need not be generated on-the-fly on each request.

As further illustrated by Figure 20, the image server returns the dynamically generated pay box graphic to the browser (event 5), and the browser displays the graphic 122 within the web page 124. Because the SP site serves the graphic directly to the visitor's browser, the personal information contained in the graphic is not exposed to the external web site or its operator. If the visitor subsequently selects the pay box (e.g., clicks on the graphic), the browser sends a request for the corresponding pay page to the SP site 66 (event 6). As described above, this request may include one or more pay page parameters.

As will be appreciated from the foregoing, the method by which the SP site displays personalized graphics within external sites may be used for a variety of non-payment related applications (e.g., providing personal recommendations or links to related content). Further, the method may be used to serve personalized objects other than images.

VI. Pay box Tracking and Feedback Reports

The pay pages application 76 may provide periodic feedback reports to pay page owners and/or their associates. For owners, the feedback reports may include one or more of the following metrics, shown separately for each of the owner's pay boxes: (a) number of pay box impressions (viewing events), (b) number of pay box click-through events, (c) number of payments resulting from such click-through events, and (d) any resulting commissions. For pay page associates, the periodic feedback reports may include the same metrics (a)-(d), but the data would be provided separately for each pay box hosted by that associate.

To generate the feedback reports, the pay pages application 76 preferably logs the following information each time a pay box is requested by a visitor's browser: (a) the pay box ID; (b) the associate ID, if any; (c) whether the visitor subsequently clicked through (selected) the pay box; (d) whether the click through event resulted in a payment to the pay page owner, (e) the amount of the payment, if any, (f) the amount of the associate commission, if any, (g) the identity of the visitor, if known, and (h) the date and time of

the visit. These and other types of information may be extracted from a server access log using well known methods.

In addition to the information listed above, the owner may be provided with data regarding the number of associates that have signed up to host each pay box.

VII. Controlled Access to Content Based on Payment History or Other User Attribute (Figure 21)

The application 76 may also include functionality for rating payers according to their voluntary payment histories taken over some or all payees. This information may be used to allow pay page owners or other content providers to serve additional content (or take other actions) for “good” payers. For example, a musical artist could provide bonus tracks, or high quality MP3 files, to those having good payment histories.

To generate the ratings, the application 76 may capture the following information for each payer: (1) number of pay pages viewed; (2) number of payments made; (3) payment amount compared to suggested amount (where payment is made); and (4) for the above data, the type of the pay page (charity, honor system, tipping, etc.). Using this data, the application may calculate the payer ratings based on one or more of the following metrics (and possibly additional metrics): (1) pay page views / payment %; (2) total amount paid / total amount suggested (for pages on which payment made); and (3) total amount paid / total suggested (for all pages viewed). The application may also track, and incorporate into the ratings, the number of times the payer viewed a pay box. In addition, the application may generate separate payer ratings for each of several pay page types.

Any of a variety of methods may be used to allow the content provider to server ratings-based content to visitors. One such method involves the use of the SP site 66 to redirect the visitor to ratings-based destinations. With this method, the content provider initially sets up separate destinations (e.g., at respective URLs) for each of multiple payer rating categories, such as “poor,” “average,” and “good.” For example, the content provider could post a sample version of a downloadable music title at the “poor” URL; a standard version of the title at the “average” URL; and an exclusive version of the title (e.g., with bonus tracks or in higher quality audio) at the “good” URL. URLs that are not

otherwise accessible from the content provider site (e.g., have no incoming or other links) may be used for this purpose.

The content provider then accesses a “ratings-based content setup” area of the SP site 66 and specifies (1) the URLs of the destinations, and (2) messages to appear on corresponding graphics served by the image server 77. Continuing the example above, the messages may read as follows:

Poor: “Click here to download a sample of Moby’s latest single”

Average: “Click here to download Moby’s latest single”

Good: “Click here to download Moby’s latest CD”

Each such message appears on a different version of a graphic served by the SP site 66. These graphics are preferably separate from the pay box graphics, although a pay box graphic could serve the dual role of providing payment functionality and access to content (e.g., via configurable “thank you page” URLs). The SP site may then generate the HTML or other code for installing the graphic within a web page (as in Figures 10 and 16 above). As with pay boxes, another type of display object (animations, etc.) could be used instead of a graphic.

Figure 21 illustrates the sequence of events that occur when a visitor accesses a page in which the graphic is installed. Initially, the visitor’s browser 84 requests, and the content provider site 140 returns, the requested HTML document (events 1 and 2). The browser 84 then sends a request to the SP site 66 for the graphic referenced within this HTML document (event 3). If the visitor is a user of the payment service, this request may contain the visitor’s cookie. In response to the request for the graphic, the SP site 66 (image server 77) looks up the visitor’s rating and selects the corresponding version of the graphic (event 4). If the visitor is unknown, or no rating exists for the visitor, a default version of the graphic may be selected. The selected graphic 142, which may be either pre-generated or generated dynamically, is then returned to the browser (event 5) and displayed within the web page. If the visitor subsequently clicks on this graphic 142, the browser sends a request for the content to the SP site 66, together with the visitor’s cookie (event 6). The SP site responds to this request by looking up the user’s rating and the

corresponding destination URL (event 7), and then redirecting the browser to this URL (events 8 and 9). One important aspect of this method is that the SP does not expose the visitor's identity or rating to the content provider site.

The method illustrated in Figure 21 can be varied such that the SP site selects the destination URL based on some user attribute other than voluntary payment history. For example, the SP site could select the destination URL based on whether the user has purchased a particular item (e.g., users who bought a particular CD can access the bonus tracks associated with that CD, while other users can only access samples of such bonus tracks). Another example would be for the SP site to select the destination URL based on whether the user has purchased a subscription from the content provider.

VIII. Payment-Based Access to Content

The pay page and pay box features of the service may also be used to collect payments that are required before external content can be accessed. To provide such functionality, the payment service may support a protocol for notifying a content provider/payee when payment has been received. One example of such a protocol is as follows:

- 1) Each content provider, when setting up a pay page, provides the SP with the content provider's public key and one or more destination URLs. Each destination URL may, for example, provide access to downloadable or viewable content.
- 2) When a payment is made by a customer using that pay page (optionally using the single-action payment method described in section X), the amount of sale, the date & time, and/or other transaction information (e.g., e-mail address of customer, IP address of computer making request, etc.) are formatted into a string, and the string is encrypted with the content provider's public key.
- 3) The encrypted string is passed by the SP site as a parameter in the destination URL in a redirect message – initially to the visitor's browser and ultimately to the content provider site 140. The string may alternatively be transferred to the content provider site by another communications method.
- 4) The content provider site decrypts the string and provides access to the customer according to the validity of the extracted information. The content provider may

prevent this string from being reused such that the URL serves as a one-time-use URL. The SP does not have to be involved or pass any more information to the content provider at this point.

5 IX. Display of Payment Counter Data within Pay Pages

As mentioned above, one feature that may be implemented by the service allows pay page owners to display real time payment counter data, such as a goal chart, within their pay pages. This feature may be enabled for certain types of pay pages (e.g., charity and honor system pages), and may be used to convey payment history data to pay page visitors. For example, a pay page for a charitable organization could display a chart showing the amount raised throughout a fundraising event; and a creator of a downloadable work could display the number of visitors who made honor system payments for the work. In both examples, the chart may be in the form of a goal chart showing the real time total relative to an owner-specified goal. The counter may be based on a particular pay page, or on a set of co-owned pay pages specified by the owner.

In one implementation of the feature, the pay page owner is given the option to display a counter indicating (a) the number of payments received, (b) the total of such payments, or (c) both. In addition, the owner may be given the option to display this counter as a goal chart, in which case the owner is prompted to specify a goal value. Where a goal chart is used, the owner may also be able to specify whether payments should continue to be collected once the goal has been reached. Once a counter has been defined, the application 76 updates the counter as payments are received and displays the counter total within the pay page. The total may, for example, be displayed as a bar chart or thermometer showing the amount received relative to the goal.

25 Any of a variety of other types of historical data could also be displayed within the pay pages. For example, the application could support the ability to display one or more of the following: average payment amount, percentage of visitors who make a payment, and average total commissions earned by associates of the pay page.

X. 1-Click Payments from External Sites (Figure 22)

Another feature that may be implemented by the service allows users to make 1-Click (single action) payments directly from externally-hosted pay boxes or other display objects (i.e., without viewing the corresponding pay pages during the payment process).

5 To implement this feature, each pay page may be assigned a "PassThru" property indicating whether 1-Click payments from pay boxes are enabled. The owner may be permitted to specify the page's PassThru setting during creation or editing of a pay page. For pass-through-enabled pay pages, the SP site 66 serves special 1-Click pay boxes to recognized 1-Click visitors. When a visitor selects a 1-Click pay box, the SP site
10 immediately redirects the user to the "thank you" URL pre-specified by the owner (or possibly the hosting associate).

Figure 22 illustrates this process in further detail. It is assumed in the illustrated example that the user has the 1-Click service turned ON, and that the pay page associated with the requested pay box is pass-through-enabled (has PassThru turned ON). Events 1-3 are the same as in Figure 20. In response to the request for the pay box graphic (event
15 3), the SP site 66 determines that the visitor has the 1-Click service turned ON and that the pay page is pass-through enabled. The SP site therefore generates and returns a special 1-Click version of the graphic (events 4 and 5). This graphic includes a 1-Click button or message indicating that selection will complete the transaction. In addition, as described
20 above, the pay box graphic displays the names of the visitor and the payee, and may include other information such as selected digits of the credit card number to be used for the transaction.

Upon selection of the pay box graphic, the browser 84 transmits a request for the pay page together with the user's cookie (event 6). Because the cookie indicates that the
25 user is a 1-Click user, the site 66 responds to this request by (1) executing the transaction according to the visitor's 1-Click settings (event 7), and (2) redirecting the browser to the owner-specified "thank you" URL (event 8). This URL may, for example, be a page of the pay page owner's external web site. The visitor's browser could alternatively be redirected back to the external page from which the payment was initiated, in which case
30 this page may then be displayed with an SP-served display object containing a payment confirmation message (e.g., "you just paid \$1 to ContentProvider.com").

Although a special 1-Click version of the pay box graphic is preferably presented to recognized 1-Click users (events 4 and 5 in Figure 22), a standard graphic or other link could alternatively be displayed to all users (e.g., a button which reads "click here to pay 25 cents"). In such embodiments, the name of recognized visitors could optionally be displayed in some other display object served by the SP site (such as a bar at the top of the web page) for display within the same external web page. In addition, although the pay box graphics in the above examples include text indicating the payment amount, the payment amounts could be conveyed by another method. For example, green, blue and red payment buttons could represent payments of 5 cents, 10 cents, and 25 cents, respectively. Further, a given external web page could include multiple 1-Click pay boxes (e.g., the three color-coded buttons mentioned above) to permit the visitor to select the payment amount.

The method illustrated in Figure 22 and described above can also be used without requiring payees to have their own pay pages. For example, upon registering with the SP, the payee may be given a unique URL to be used for receiving payments from visitors to external (2nd and/or 3rd party) sites. This URL would take the place of the unique pay page URL. For recognized 1-Click visitors, the process would be the same as shown in Figure 22 and described above (i.e., the visitor would immediately be redirected to a thank you page, etc.). For visitors who are not recognized 1-Click users, selection of the pay box would preferably cause the SP site to return a sign-in page. The user would then sign in (or register, if necessary), and then complete payment via a generic payment pipeline.

It is also contemplated that the service could require that all payments made from external sites be made as 1-Click payments (i.e., users would not be given the option to turn the 1-Click service ON and OFF for purposes of making such payments). In such embodiments, all recognized visitors may be treated as 1-Click users.

XI. Content Distribution Models

As mentioned above, the SP site 66 may implement a service for hosting the downloadable content of pay page owners. The pay page owners may upload such content (optionally together with descriptive text) to a service provider database via a special area of the site. Where such a service is provided, the site may also include

functionality for users to search for downloadable content and make voluntary or required payments to the creators. For example, when the search engine returns a product detail page for a downloadable work, the detail page may automatically display the pay box of the creator. The SP site may also allow pay page owners to create links to their own content and embed these links within their own pay pages. For example, the pay page for a novelist may include links to each of his novels as hosted by the SP site.

The SP site 66 may also provide a mechanism for web site operators to (1) locate the content uploaded by pay page owners (e.g., using a search engine), and (2) republish such content on their own web sites together with the pay boxes of the associated pay page owners. To participate in this program, web site operators may be required by online agreement not to republish any content without a corresponding pay box. Upon uploading new content to the SP database, the pay page owners may specify the commissions (if any) they wish to receive.

The SP site 66 may also provide a mechanism for other users to locate the service-provider-hosted content of others, create links to such content, and embed these links within their own web sites. For example, an operator of a music site could search the SP database for music files, and incorporate links to such files (or to the pay pages of their creators) within the music site. As with associate-hosted pay boxes, these links may be generated automatically by the SP site, and may include an associate identifier that allows the SP to track and pay commissions for referrals. Whenever a visitor follows such a link, the site displays the content together with a pay box, pay page, or other entry point into the payment system. With this model, a user who hosts such a link may receive a commission whenever another user follows the link and makes a voluntary or required payment to the owner.

XII. Integration of Payment Service with External Content Provider Site

Figure 23-25 are example screen displays illustrating how some of the above-described features may be used to allow users to make 1-Click, honor system micropayments, and to access other SP services, from an external content provider site. In these examples, the service provider site is the Amazon.com web site.

Figure 23 illustrates an example, hypothetical web page of the external content provider site "Forbe.com." The external page includes two payment links 160 and 162, each of which is provided in association with a respective article. These links point to the SP site, and preferably to a pass-thru-enabled pay page of Forbe.com.

Figure 24 illustrates a hypothetical page of the Forbe.com site displayed when a recognized 1-Click user selects payment link 160 in Figure 23. As mentioned above, all visitors with service provider accounts could be treated as 1-Click users for this purpose. In this example, the SP site responded to selection of the link by charging \$.05 to the account of the visitor, FuMing Young, and by immediately redirecting the visitor to the page on which the article appears (the "story page"). The story page in this example includes a bar 166, and a discussion area box 168, which are dynamically generated and served by the service provider site according to the methods described above. The bar 166 displays a payment confirmation message indicating that \$.05 has been charged to the visitor's account. The bar 166 also includes buttons (links to the SP site) for (a) initiating a search, (b) viewing a listing of items commonly purchased by other users who paid for this article, and (c) viewing related products. The discussion area box 168 allows visitors to view and add comments about the article. Comments added via the discussion area object are stored within a database of the SP site.

Figure 25 illustrates a story page according to another embodiment. In this embodiment, the bar 166 also includes an "unpay" button for negating the voluntary payment made for accessing the article. When this button 167 is selected, the SP site either (1) cancels the transaction if the payer's credit card has not yet been charged, or (2) refunds the transaction if the credit card has already been charged. The ability to negate or reverse payments in this manner may also be used in other contexts in which users make voluntary or honor system payments, such as those set forth above. In some embodiments of this feature, the payer can only negate the voluntary payment during a particular time duration following that payment. Each payee or content provider may be permitted to specify this time duration via the SP site – optionally separately for each of its pay pages.

In addition, the bar 166 includes an "add to library" button for allowing the visitor to add the article to a personal library maintained on the service provider site. In this

example, the “discussion area” box 168 is a drop-down box shown in the dropped-down or “expanded” state.

Figure 26 is an example page of the SP site describing how content providers can manually add HTML code around their links to “payment-enable” their content (i.e., add payment links of the type illustrated in Figure 23). This page also describes how the content provider can insert an optional discussion area box 168 within the same external web page as the payment link.

Figures 27 illustrates a “paylink creation tool” form that may be provided on the SP site to automatically generate HTML or other coding for adding pay links. Once the user completes and submits the form (including specifying a nickname used for referral tracking), the SP site generates and returns the coding (Figure 28) to be inserted into the HTML document of the external web page.

XIII. Payer Preferences for Treatment on External Sites

The SP site 66 may also include functionality for payers to pre-specify how they should be treated by the SP when browsing external (second and/or third party) web sites that host pay boxes or other SP-customized content. For example, each payer may have the option, via an account setup area of the SP site, to specify one or more of the following preferences: (a) whether to be identified within pages of external web sites, (b) whether to be shown personal product/service recommendations within external web sites, (c) whether to be shown links to related sites, and/or related content, within external sites, (d) whether to be given access to payer-ratings-based content (see section VII above), (e) whether 1-Click payments may be made from external sites, (f) whether to be shown a running total of payments made to the external site, and (g) whether to be notified when payments made to the external site reach a certain threshold. These and other preferences may be stored in the “user accounts” database 72 (Figure 2), and used by the SP site to customize pay box graphics and/or other content displayed within the external sites. The payer may also be given the option to set up one or more payment options for handling 1-Click or other payments made from external sites (e.g., all 1-Click payments made on site A should be charged to credit card A, and all 1-Click payments made on site B charged to credit card B).

Although the invention has been described in terms of certain preferred embodiments, other embodiments that are apparent to those of ordinary skill in the art, including embodiments which do not provide all of the features and advantages set forth herein, are also within the scope of this invention. Accordingly, the scope of the invention is defined by the appended claims.

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